WM-FS397/FS398

SERVICE MANUAL

US Model
AEP Model
UK Model
E Model
WM-FS397
Canadian Model
WM-FS397/FS398

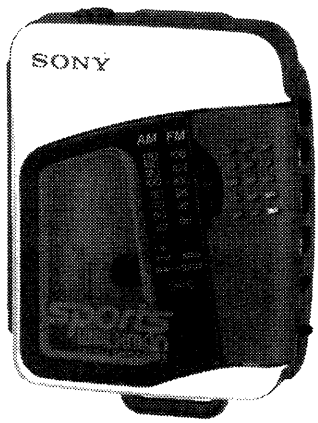


Photo: WM-FS397

Model Name Using Similar Mechanism	WM-FX433/FX435
Tape Transport Mechanism Type	MF-WMFX433-114

SPECIFICATIONS

Radio Frequency

FM : 65 – 107.9 MHz (0.05 MHz step)(East European Model)
: 87.5 – 108 MHz (0.05 MHz)(Italian Model)
: 87.6 – 107.9 MHz (0.05 MHz step)(AEP,E Model)
: 87.6 – 108 MHz (0.1 MHz step)(US, Canadian, Saudi Arabia Model)
AM : 526.5 – 1,606.5 kHz (9 kHz step)(Italian, Saudi Arabia Model)
: 530 – 1,710 kHz (10 kHz step)(US, Canadian Model)
: 531 – 1,602 kHz (9 kHz step)(AEP, UK, East European, E Model)

Power Requirements
• 3V DC Batteries AA (R6) x 2

Battery Life (approximate hours)

Battery	Playback	Radio
Sony Alkaline LR6 (SG)	18 hours	30 hours
Sony R6P (SR)	5 hours	15 hours

Dimensions
99.7 x 117.4 x 41.0 mm (4 x 4 5/8 x 1 5/8 in.) (w/h/d)
icl. projecting parts

Mass
265 g (9.4 oz) incl. batteries

Supplied Accessories
• Stereo headphones (1)
• Belt clip (1)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

RADIO CASSETTE PLAYER

SONY®

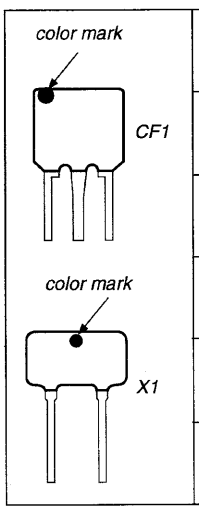
TABLE OF CONTENTS

Section	Title	Page
SECTION 1 SERVICING NOTE		3
SECTION 2 GENERAL		4
SECTION 3 DISASSEMBLY		
3-1.	Cover and Arm Assembly	5
3-2.	Cassette Holder Assembly	5
3-3.	Cabinet (Rear) Assembly	6
3-4.	Main Board and Mechanism Deck	6
SECTION 4 ADJUSTMENTS		
4-1.	Mechanical Adjustments	7
4-2.	Electrical Adjustments	7
SECTION 5 DIAGRAMS		
5-1.	Printed Wiring Board	11
5-2.	Schematic Diagram	13
SECTION 6 EXPLODED VIEWS		
6-1.	Cassette Holder Section	16
6-2.	Main Board Section	17
6-3.	Rear cabinet Section	18
6-4.	Mechanism Section (MF-WMFX433-114)	19
SECTION 7 ELECTRICAL PARTS LIST		20

HOW TO CHANGED THE CERAMIC FILTERS

This model is used two ceramic filters of CF1, X1. You must used same type of color marked ceramic filters in order to meet same specifications.

Therefore, the ceramic filter must changed two pieces together since it's supply two pieces in one package as a spare parts.



color mark	Center Frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

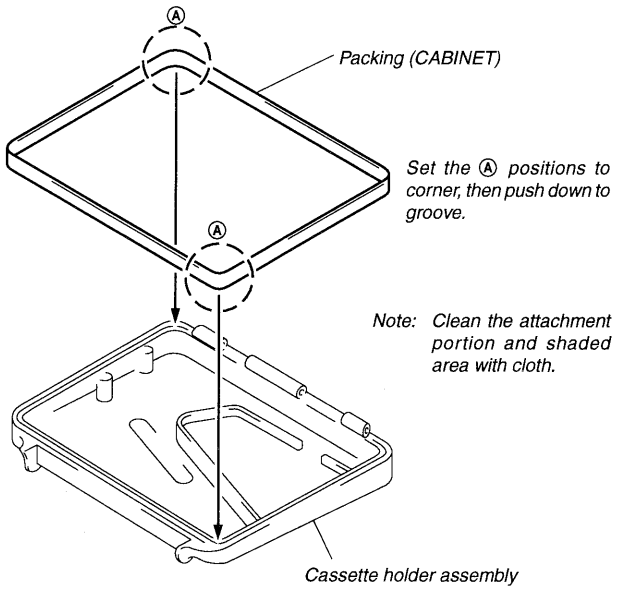
- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

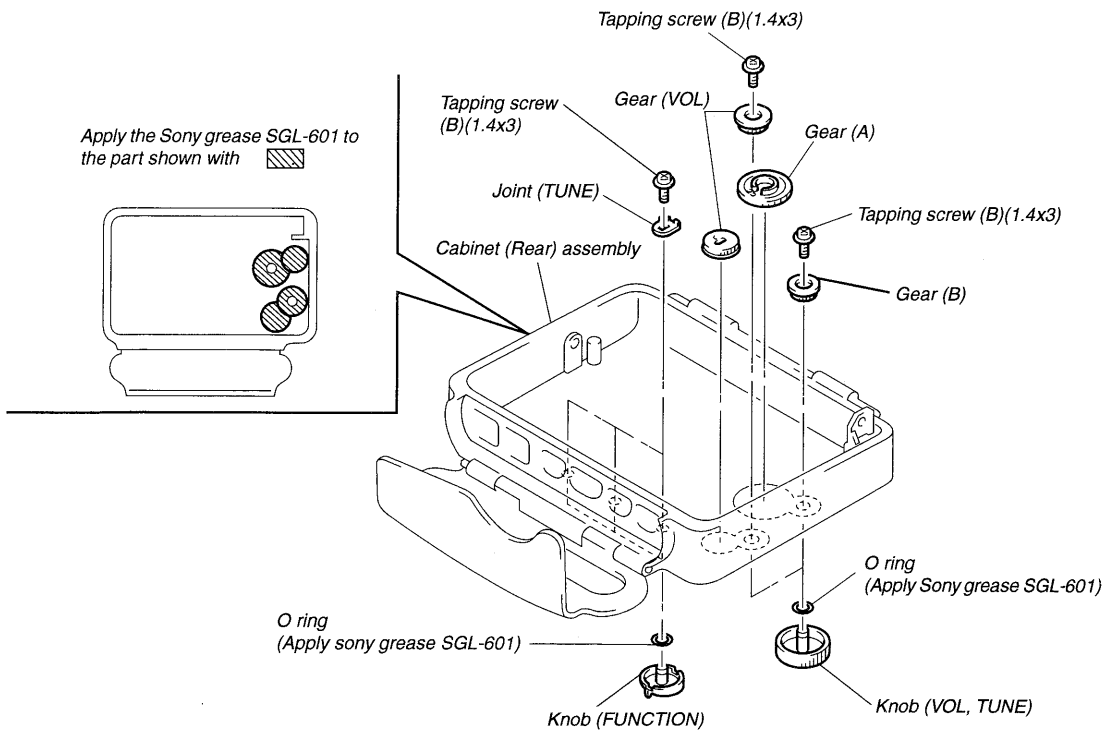
SECTION 1
SERVICING NOTE

WATERPROOFED SECTION

Note: In case the parts in the figure are removed for repair, treat them to protect from water drop following the instructions in the figure (spread grease, bond etc.).

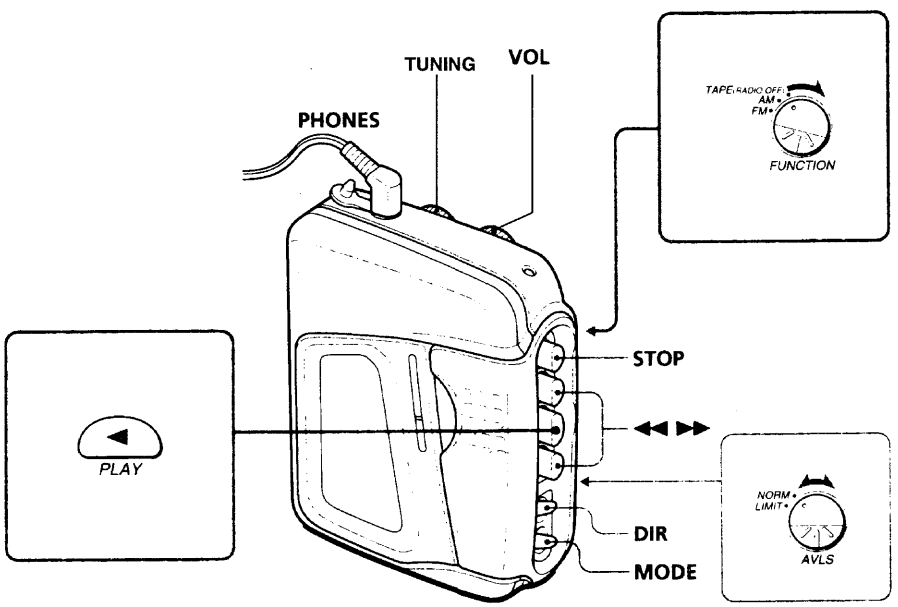
- Sony grease SGL-601: 7-651-000-10





SECTION 2
GENERAL

This section is extracted from instruction manual.



◀◀ ▶▶
Wind rapidly

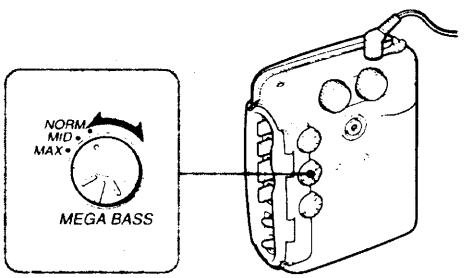
■ STOP
Stop

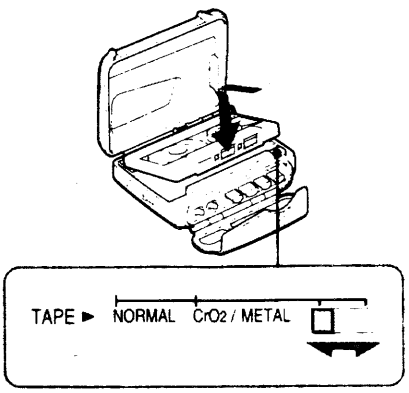
DIR
Change sides

MODE
Play both sides once ⇄/repeatedly ↻.

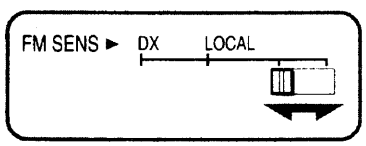
MEGA BASS

For deep and powerful sound

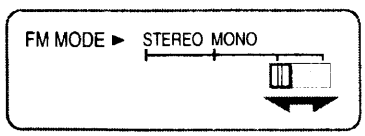




US, Canadian model



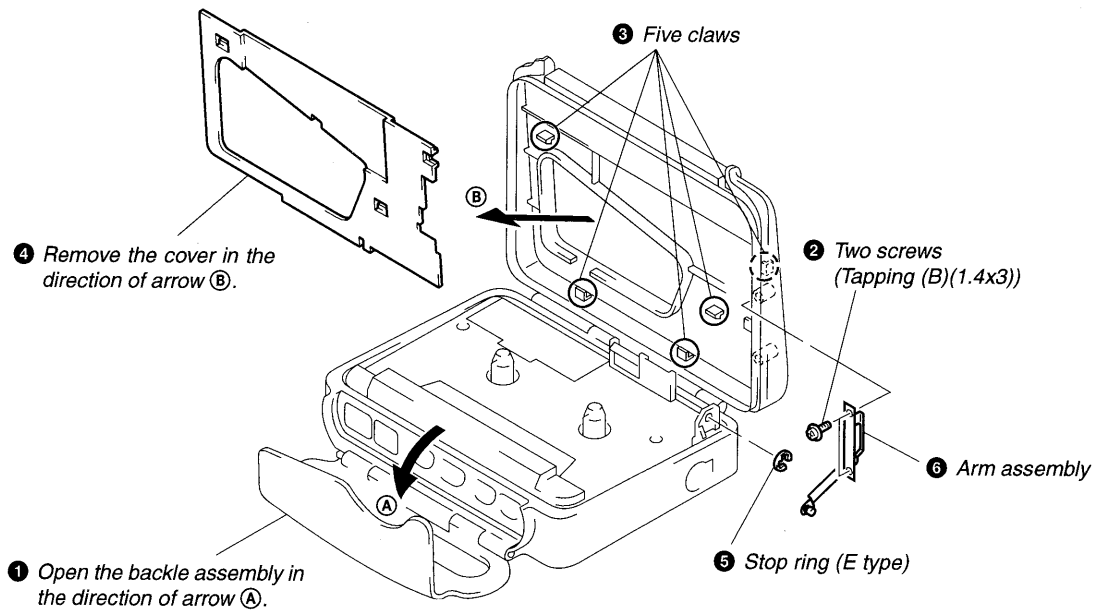
AEP, UK, Italian, Saudi Arabia, East European model



SECTION 3
DISASSEMBLY

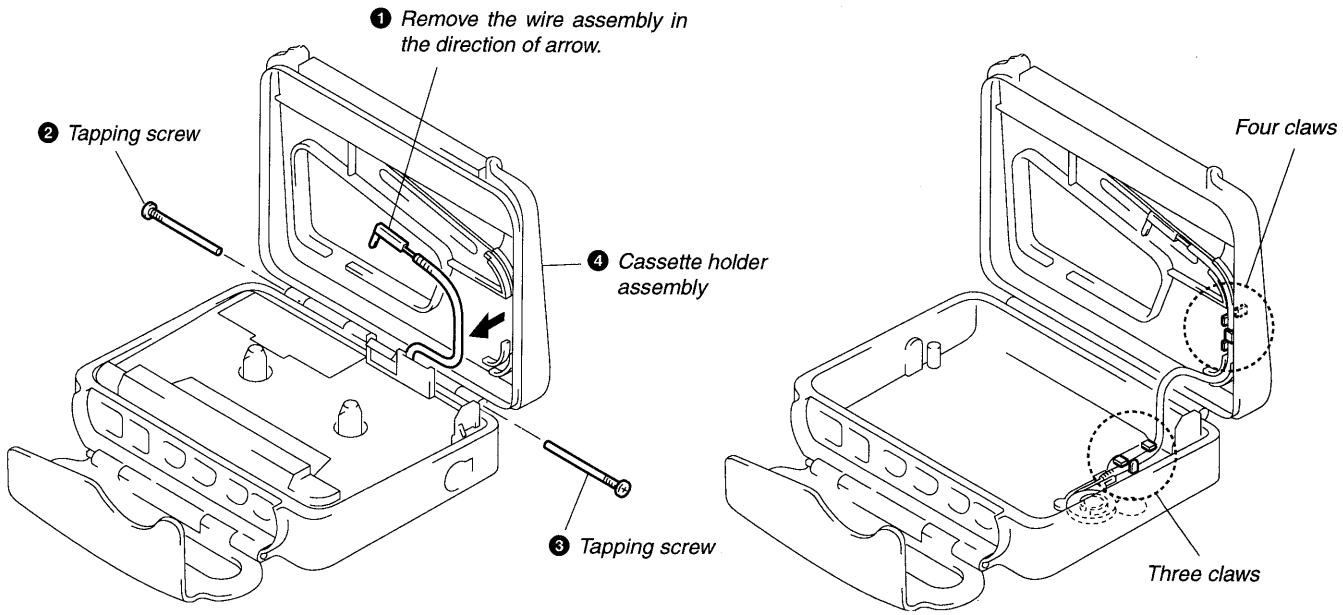
Note: Follow the disassembly procedure in the numerical order given.

3-1. COVER AND ARM ASSEMBLY

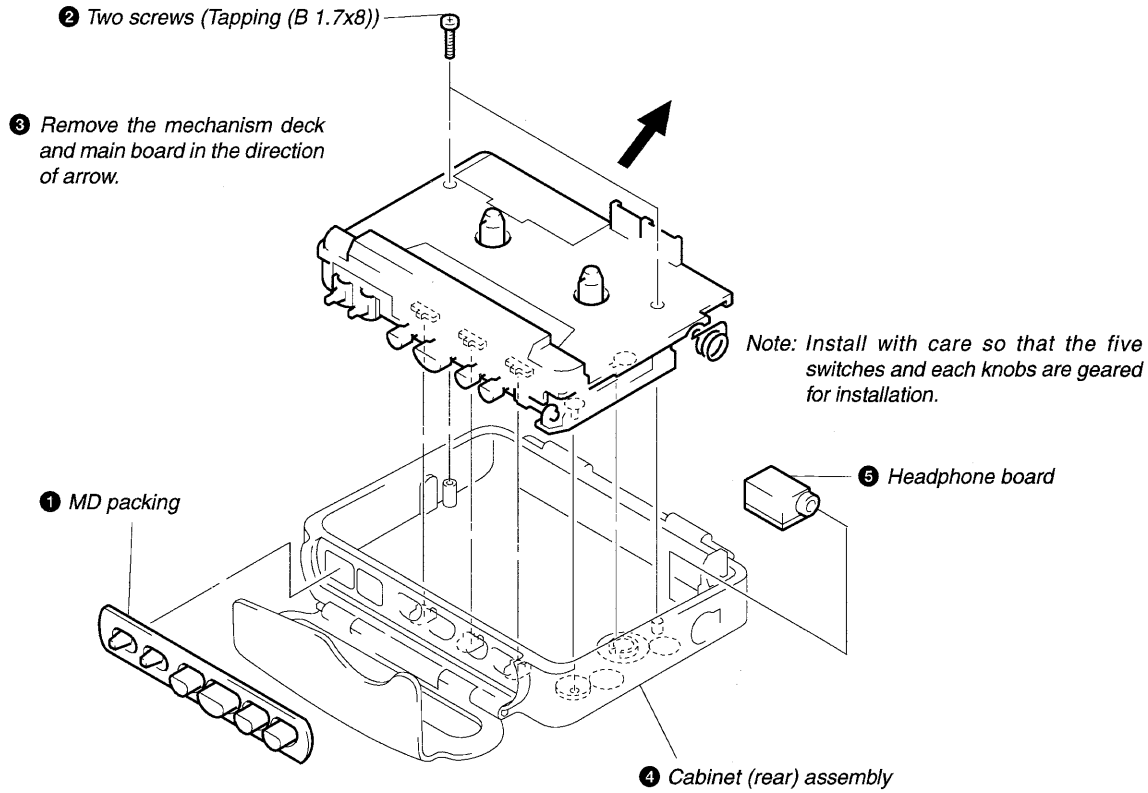


3-2. CASSETTE HOLDER ASSEMBLY

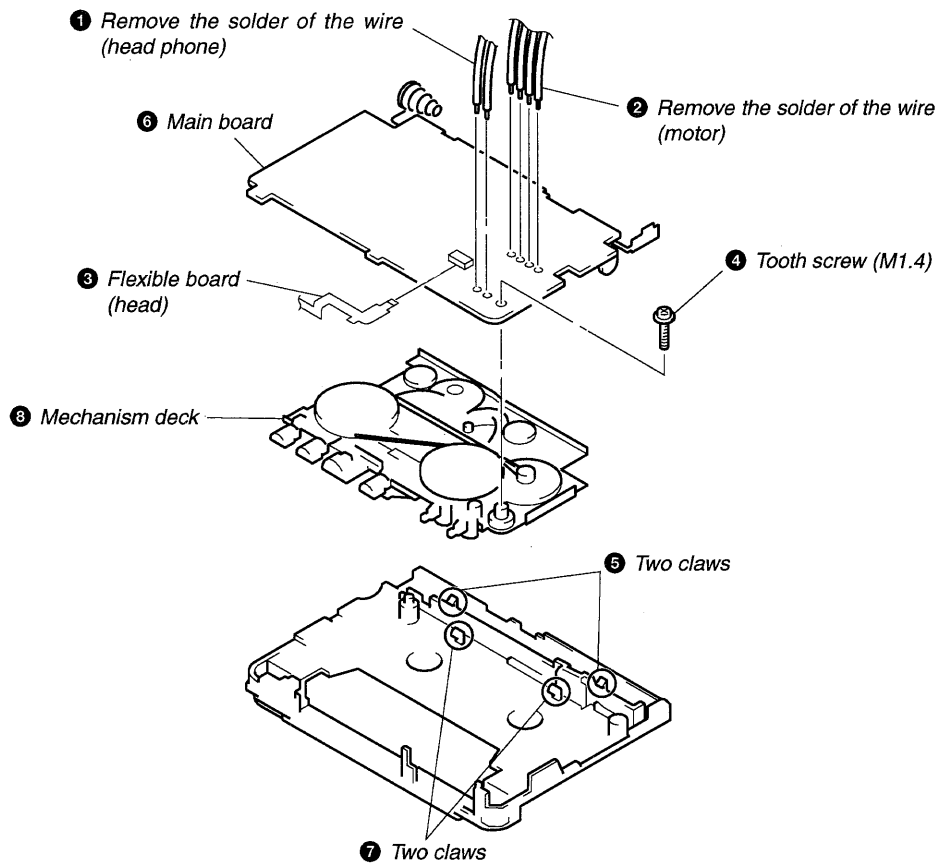
Note:
Pull around the wire assembly through the seven claws as shown in the figure for installation.



3-3. CABINET (REAR) ASSEMBLY



3-4. MAIN BOARD AND MECHANISM DECK



SECTION 4
ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

Precaution

1. Clean the follwing parts with a denatured-alcohol-moistened swab :
   playback head pinch roller
   capstan rubber belts
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the rated power supply voltage (2.5 V) unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	20-42 g-cm (0.28-0.58 oz-inch)
FWD Back Tension		less than 2 g-cm (less than 0.03 oz-inch)
REV	CQ-102RC	20-42 g-cm (0.28-0.58 oz-inch)
REV Back Tension		less than 2 g-cm (less than 0.03 oz-inch)
FF, REW	CQ-201B	more than 60 g-cm (more than 0.83 oz-inch)

Tape Pulling Force Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 40g (more than 1.4 oz)
REV	CQ-403R	

4-2. ELECTRICAL ADJUSTMENTS

Precaution

- Supplied voltage : 2.5V
- Switch and control position
  TAPE switch : NORM
  MEGA BASS switch : NORM
  VOLUME control : maximum
  AVLS switch : NORM

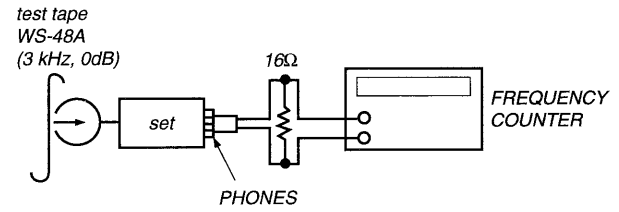
TAPE SECTION

- Function switch : TAPE

Test tape

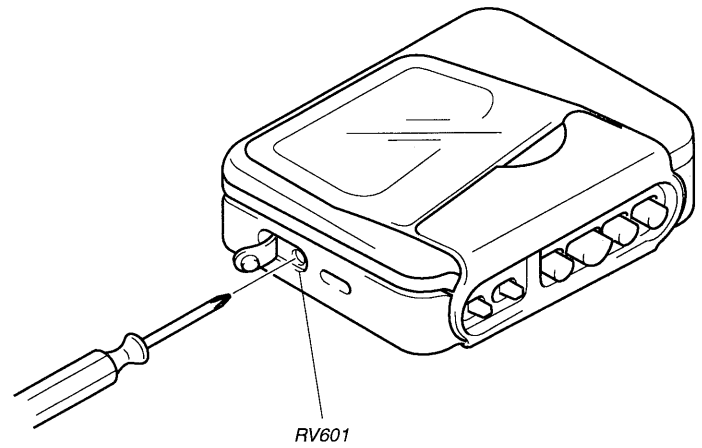
Type	Signal	Used for
WS-48A	3kHz, 0dB	Tape Speed Adjustment

Tape speed adjustment



Procedure:
Play back WS-48A (tape center portion) in reverse mode.
Adjust the RV601 so that the frequency counter reads 2,985Hz ± 15Hz.
Frequency difference between the begining and the end of the tape should be within ± 1.5%.

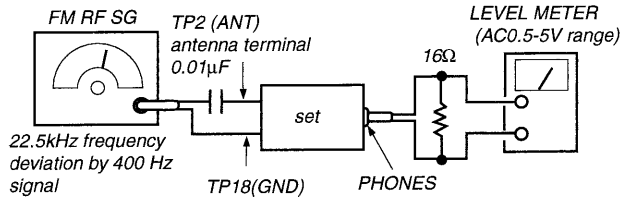
Adjustment Location:



RADIO SECTION

FM section

- Function switch : FM
- FM SENS switch : DX (US, Canadian model)
- FM MODE switch : STEREO (Except US, Canadian model)



Repeat the procedure in each adjustment several times since L (3, 2) affects CT (3, 2) and CT (3, 2) affects L (3, 2). Both the frequency coverage and tracking adjustments should end with the final adjustment of the trimmer capacitors.

FM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on LEVEL METER
f minimum	86 .5MHz (64.0MHz) [87.35MHz]	L3	maximum
f maximum	109.5MHz (109.5MHz) [108.25MHz]	CT3	

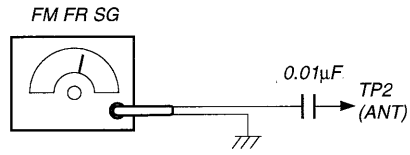
( ) : East European model
[ ] : Italian, Saudi Arabia models

FM Tracking Adjustment

SG and set frequency	Adjustment part	Reading on LEVEL METER
86.5MHz (64.0MHz) [87.35MHz]	L2	maximum
109.5MHz (109.5MHz) [108.25Mhz]	CT2	

( ) : East European model
[ ] : Italian, Saudi Arabia models

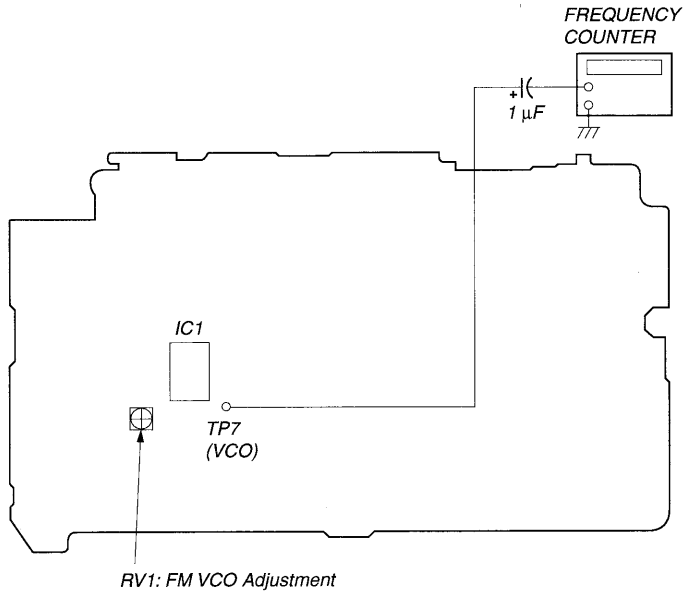
VCO ADJUSTMENT



Carrier frequency : 98MHz (88MHz: East European model)
Modulation : no modulation
Output level : 55dB (562µV)

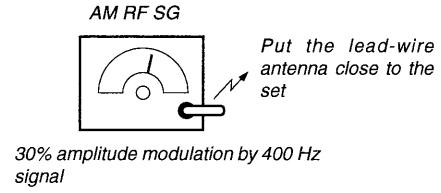
1. Connect the frequency counter to TP7 and Ground as shown the figure below.
2. Tune the to 98 MHz. (88 MHz: East European model)
3. Adjust RV 1 for 76 kHz ± 50 Hz reading on frequency counter.

[MAIN BOARD] – Conductor side –

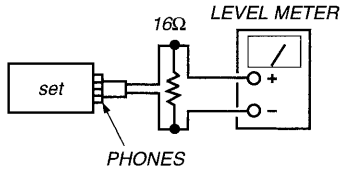


AM section

• Function switch: AM



Repeat the procedure in each adjustment several times since L (4, 1) affects CT (4, 1) and CT (4, 1) affects L (4, 1). Both the frequency coverage and tracking adjustments should end with the final adjustment of the trimmer capacitors.



AM IF Adjustment

SG and set frequency	Adjustment part	Reading on LEVEL METER
455 kHz	T1	maximum

AM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on LEVEL METER
f minimum	520kHz (520kHz) [516.5kHz]	L4	maximum
f maximum	1,680kHz (1,750kHz) [1631.5kHz]	CT4	

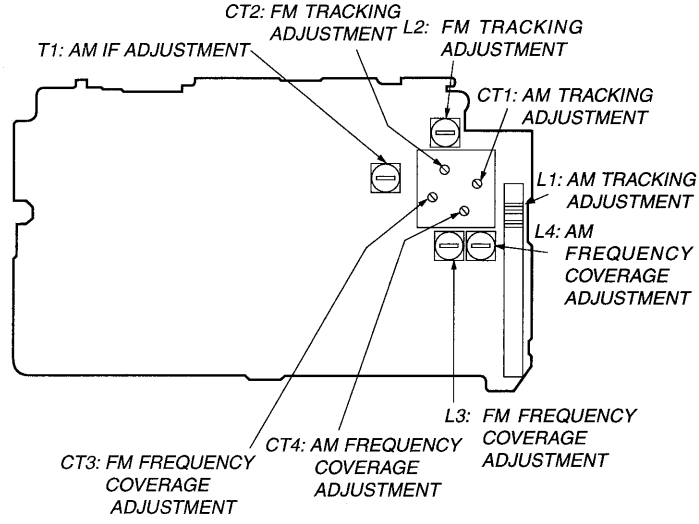
( ) : US, Canadian model

[ ] : Italian, Saudi Arabia models

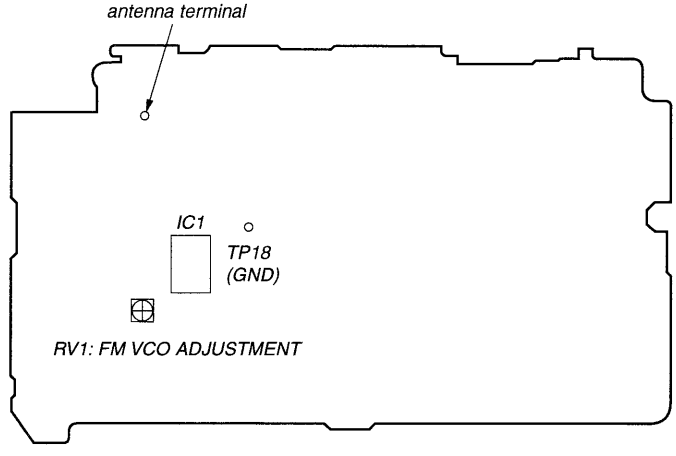
AM Tracking Adjustment

SG and set frequency	Adjustment part	Reading on LEVEL METER
620kHz	L1	maximum
1,400kHz	CT1	

[MAIN BOARD] – Component side –



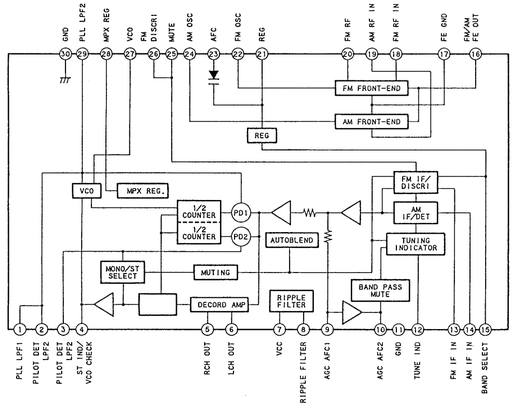
[MAIN BOARD] – Conductor side –



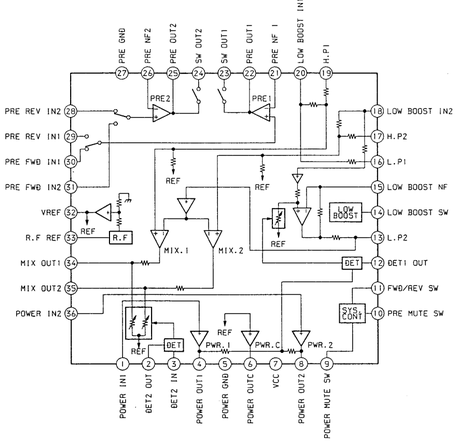
SECTION 5
DIAGRAMS

• IC BLOCK DIAGRAMS

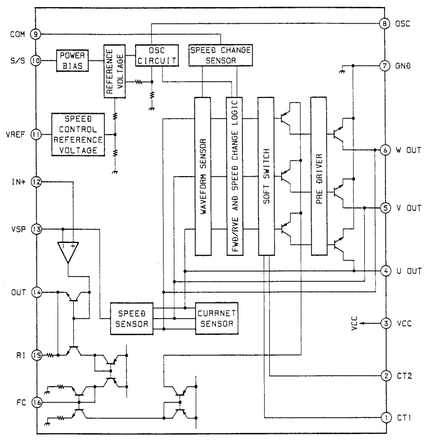
IC1 CXA1538N



IC301 LA4585M



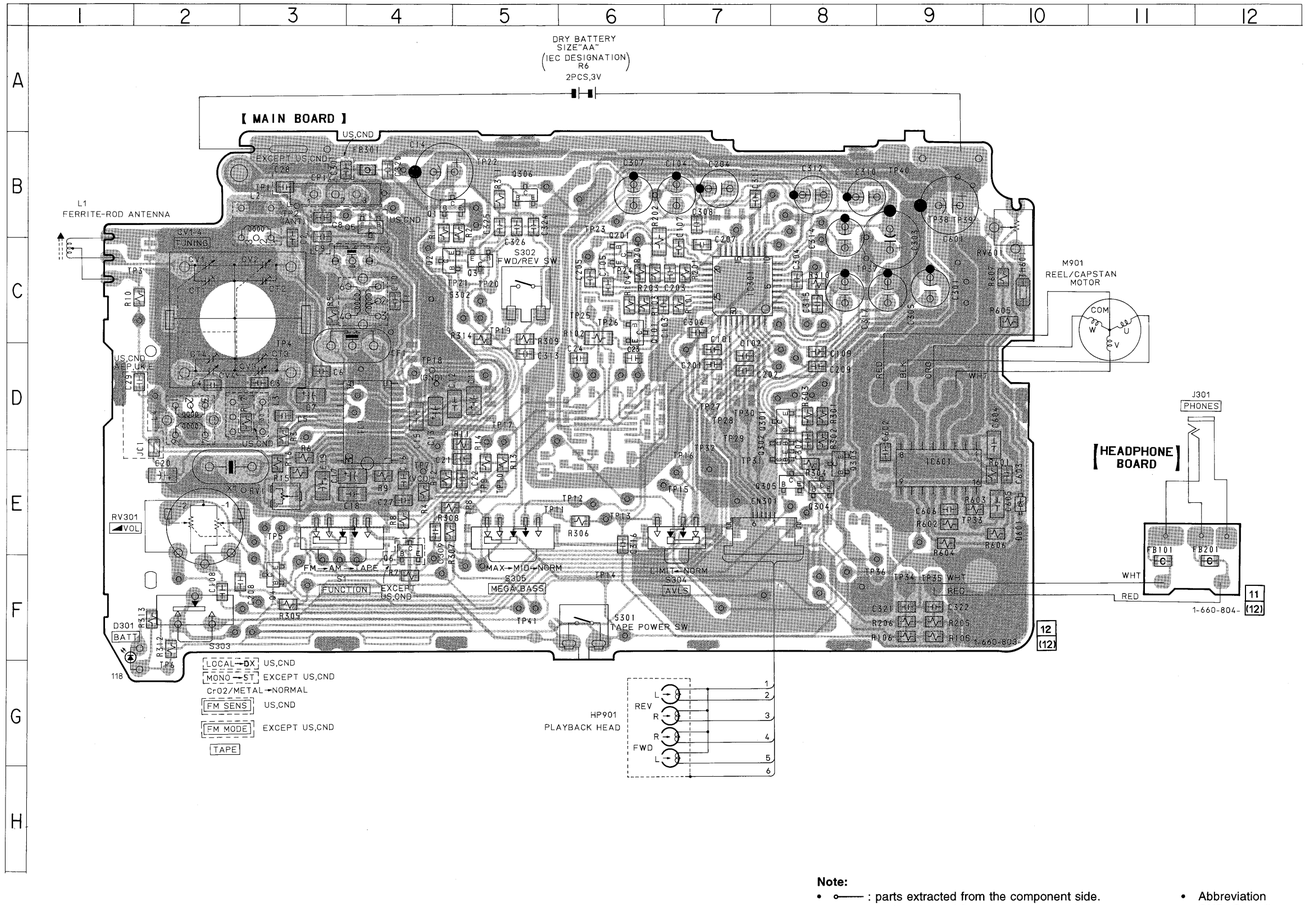
IC601 LB1879M



• Semiconductor Location

Ref. No.	Location
D301	F-1
D601	E-10
IC1	D-4
IC301	C-7
IC601	E-9
Q1	B-4
Q2	C-4
Q3	C-5
Q4	F-3
Q5	B-4
Q6	E-4
Q101	C-6
Q201	C-6
Q301	D-8
Q302	E-8
Q303	E-8
Q304	E-8
Q305	E-8
Q306	B-5

5-1. PRINTED WIRING BOARD

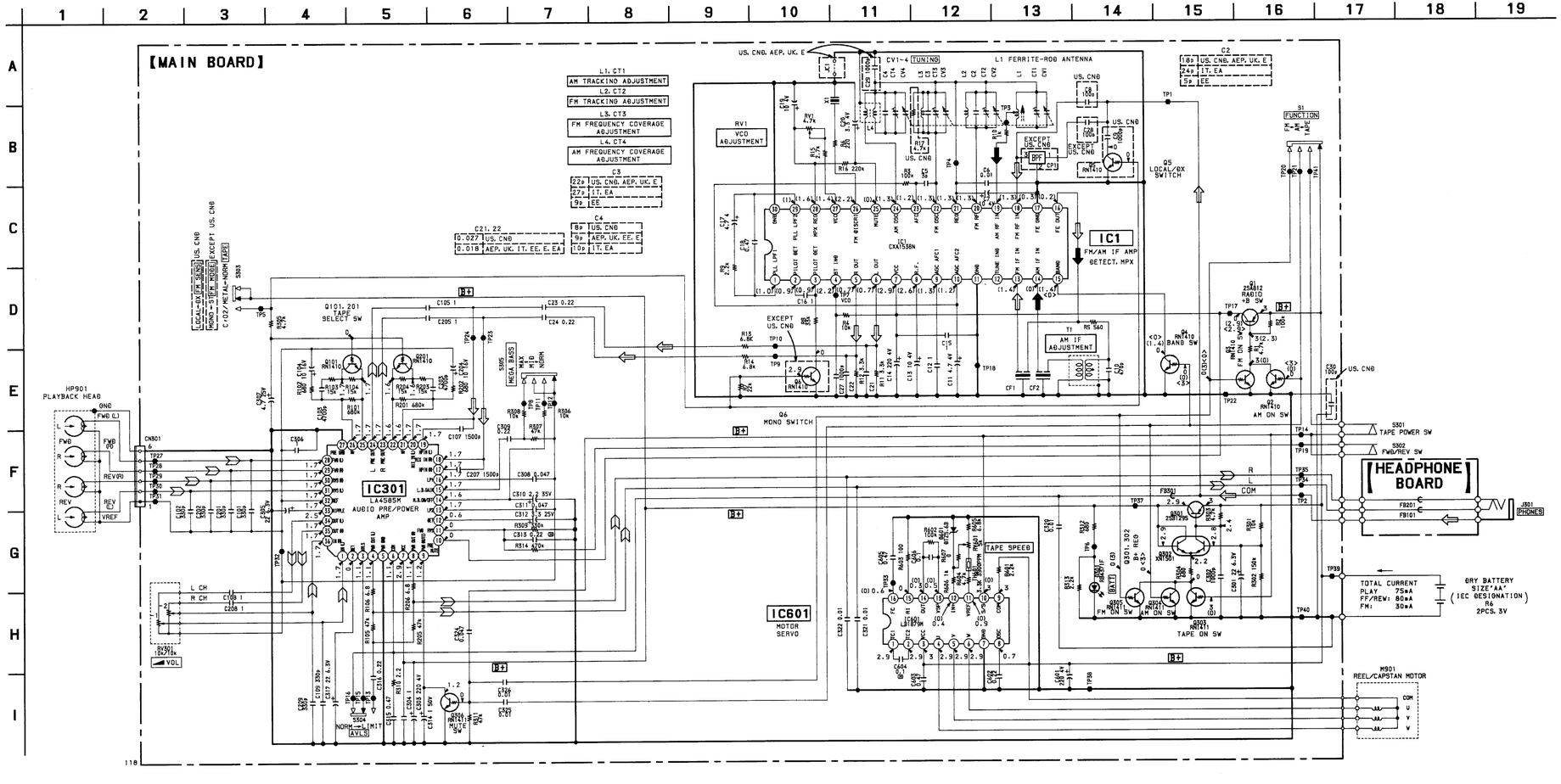


Note:

- ○——○ : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enable seeing.
- ▒▒ : Pattern of the rear side.

- Abbreviation
  CND: Canadian model.

5-2. SCHEMATIC DIAGRAM



NOTE

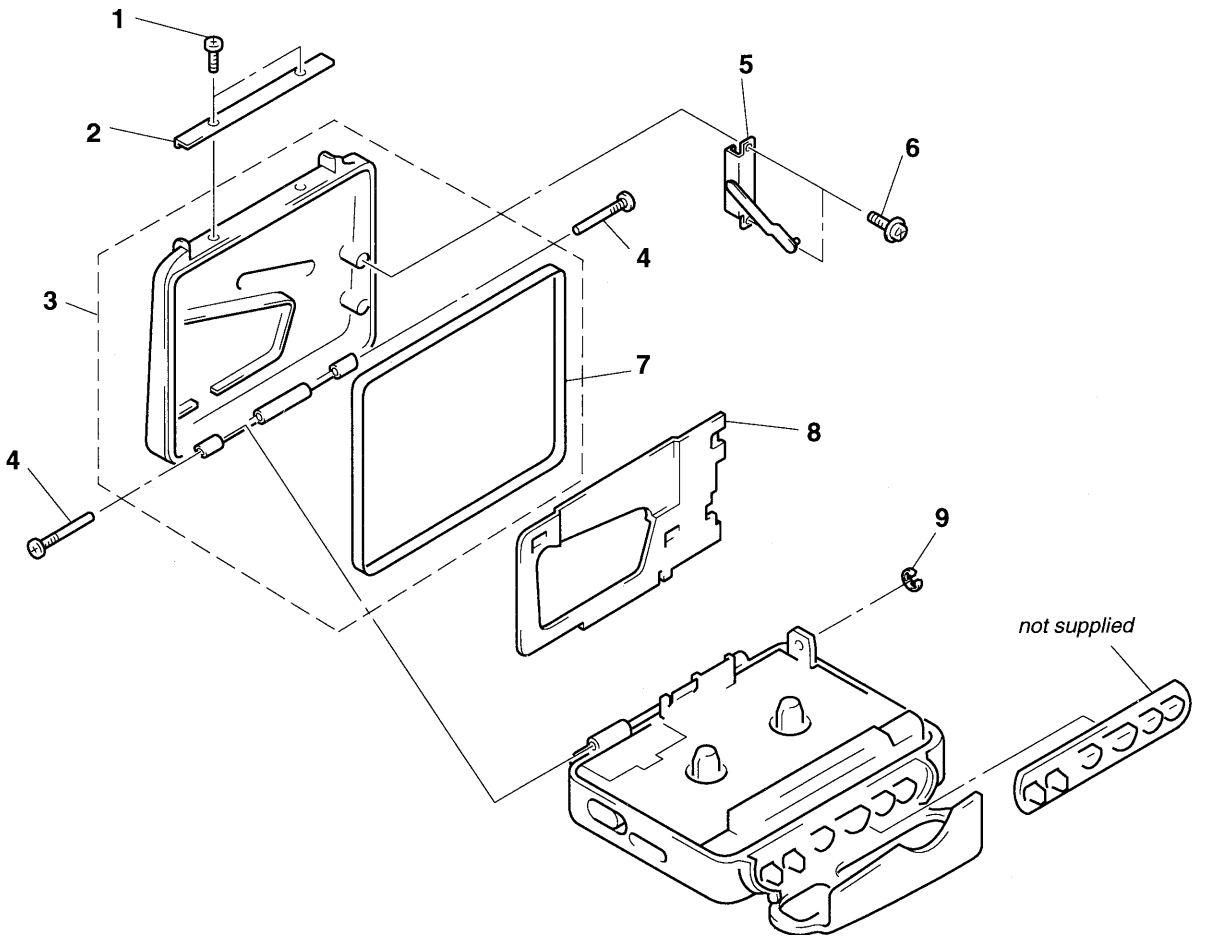
- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ :panel designation.
- ▭ :adjustment for repair.
- Voltages are dc with respect to ground under no-signal (deturned) conditions.
  no mark: PLAY
  ( ): FM
  < >: AM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Power voltage is dc 3 V and fed with regulated dc power supply from battery terminal.
- Total current is measured with no cassette installed.
- Abbreviation
  CND: Canadian model.
  IT : Italian model.
  EE : East European model.
  EA : Saudi Arabia model.
- Signal path.
  ⇨ :FM
  ➡ :AM
  ⇨ :PB

SECTION 6
EXPLODED VIEWS

NOTE:

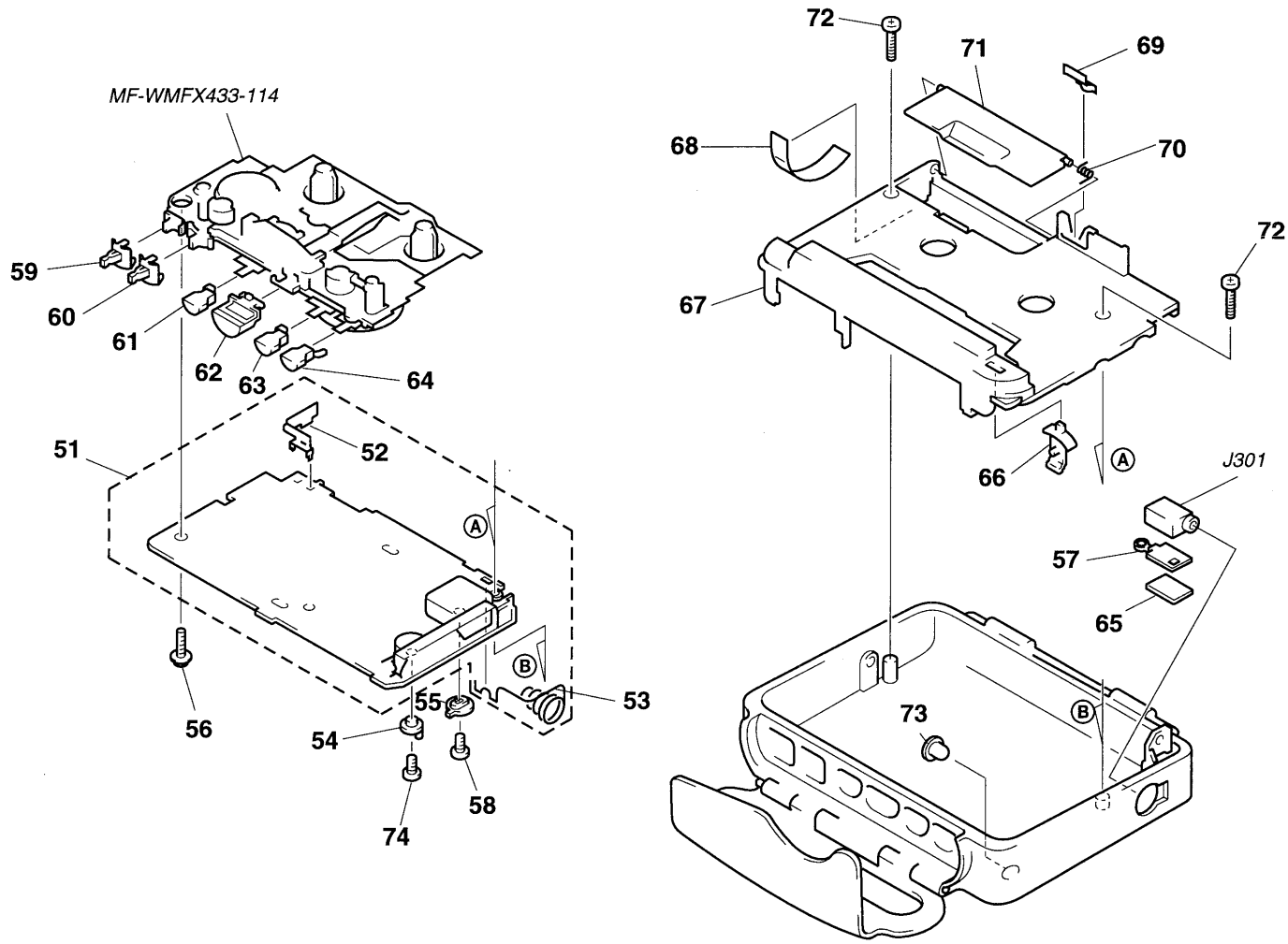
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE)
  ↑
  Parts color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  IT : Italian model
  EE : East European model
  EA : Saudi Arabia model

6-1. CASSETTE HOLDER SECTION



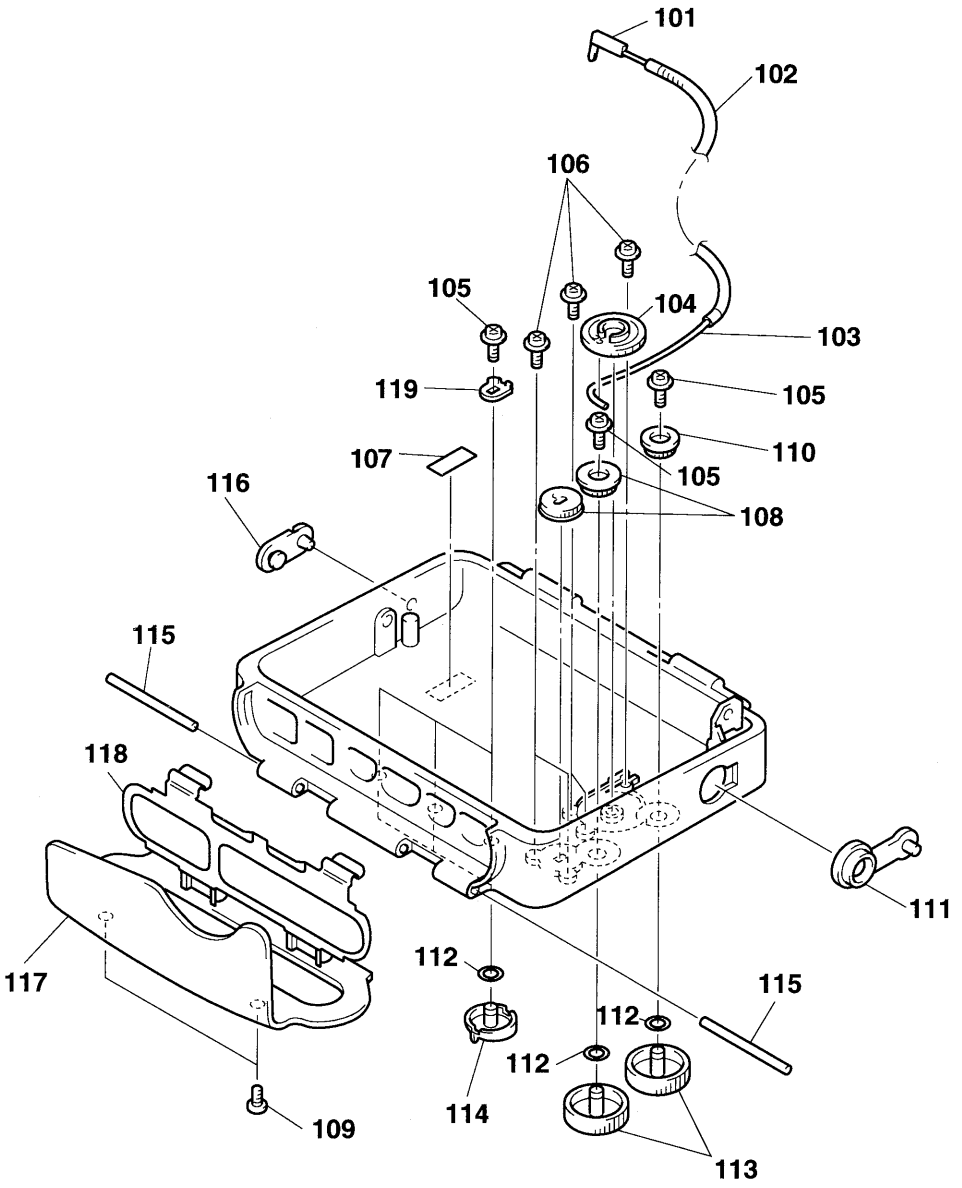
Ref. No.	Part No.	Description	Remark
1	3-704-245-71	SCREW (1.4)	
* 2	3-934-007-01	BRACKET (C)	
3	X-3372-182-1	HOLDER (CASSETTE) ASSY (YELLOW) (FS397: US,CND)	
3	X-3372-183-1	HOLDER (CASSETTE) ASSY (FS397: AEP,UK,E)	
3	X-3372-184-1	HOLDER (CASSETTE) ASSY (FS397: IT,EA)	
3	X-3372-185-1	HOLDER (CASSETTE) ASSY (FS397: EE)	
3	X-3372-310-1	HOLDER (CASSETTE) ASSY (GREEN) (FS397: US,CND)	
3	X-3372-446-1	HOLDER (CASSETTE) ASSY (FS398)	
4	3-386-373-01	SCREW, TAPPING	
5	X-3369-989-1	ARM ASSY	
6	3-318-201-01	SCREW (B)(1.4X3), TAPPING	
7	3-934-016-01	PACKING (CABINET)	
8	3-934-008-01	COVER	
9	7-624-101-04	STOP RING 1.2 (E TYPE)	

6-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	A-3016-818-A	MAIN BOARD, COMPLETE (FS397: US,CND/FS398)	
51	A-3016-819-A	MAIN BOARD, COMPLETE (FS397: AEP,UK,E)	
51	A-3016-820-A	MAIN BOARD, COMPLETE (FS397: IT,EA)	
51	A-3016-822-A	MAIN BOARD, COMPLETE (FS397: EE)	
52	3-921-878-01	TERMINAL BOARD, BATTERY	
53	3-934-017-01	TERMINAL (-), BATTERY	
54	3-934-023-01	JOINT (VOL)	
55	3-934-003-01	JOINT (TUNE)	
56	3-921-955-01	SCREW (M1.4), TOOTH (WH)	
* 57	3-922-444-01	TERMINAL BOARD, ANTENNA	
58	3-386-374-01	SCREW (1.7)	
59	3-921-864-01	KNOB (MODE)	
60	3-921-863-01	KNOB (DIR)	
61	3-921-862-01	BUTTON (REW)	
62	3-921-859-01	BUTTON (PLAY)	
63	3-921-861-01	BUTTON (FF)	
64	3-921-860-01	BUTTON (STOP)	
65	1-660-804-11	HEADPHONE BOARD	
66	3-934-005-01	KNOB (DX-LOCAL)	
67	3-933-995-01	CHASSIS (FS397: US,CND/FS398)	
67	3-933-995-31	CHASSIS (FS397: AEP,UK,E,IT,EE,EA)	
68	3-934-185-11	SHEET, BATTERY	
69	3-351-153-01	SPRING	
70	3-936-792-01	SPRING, TORSION	
71	3-934-020-01	LID, BATTERY CASE	
72	3-318-203-31	SCREW (B1.7X8), TAPPING	
73	3-914-156-01	WINDOW, LED	
74	7-627-850-67	SCREW, PRECISION +P1.4X4	
J301	1-563-298-11	JACK (SMALL TYPE) (DIA. 3.5) (PHONES)	

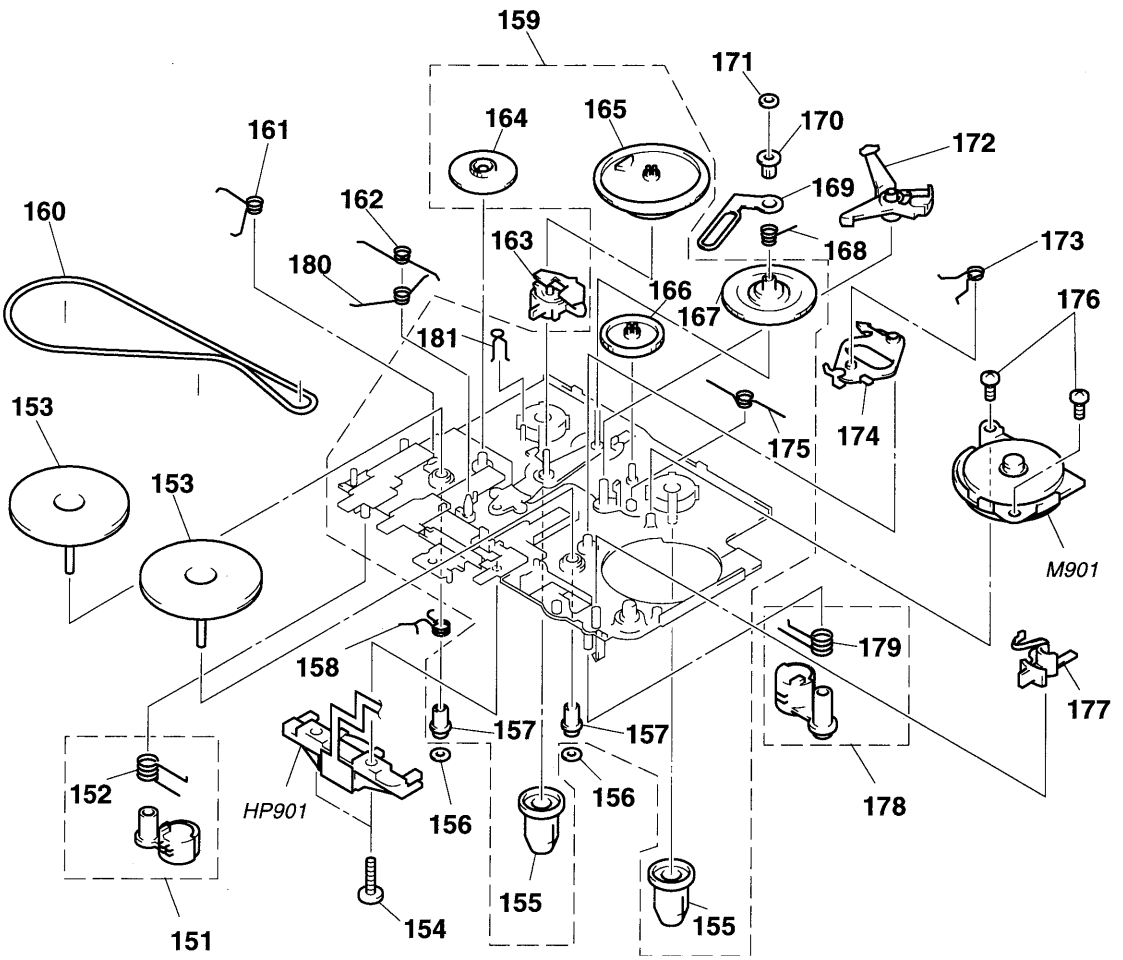
6-3. REAR CABINET SECTION



Ref. No.	Part No.	Description	Remark
101	3-934-006-01	POINTER	
102	X-3371-871-1	OUTER ASSY	
103	3-933-992-01	WIRE	
104	3-934-001-01	GEAR (A)	
105	3-318-201-01	SCREW (B)(1.4X3), TAPPING	
106	3-381-629-11	SCREW, (B)(1.4X3), TAPPING	
107	3-831-441-XX	SPACER, KNOB	
108	3-934-002-01	GEAR (VOL)	
109	3-704-244-61	SCREW (P1.7X4.0)	
110	3-934-021-01	GEAR (B)	

Ref. No.	Part No.	Description	Remark
111	3-386-371-01	PACKING, HP JACK	
112	3-326-560-02	RING (DIA. 2.5XDIA. 4.5), O	
113	3-933-999-01	KNOB (VOL.TUNE)	
114	3-934-000-01	KNOB (FUNCTION)	
115	3-936-847-01	SHAFT	
116	3-922-447-01	PACKING, DC JACK	
117	3-934-014-01	BUCKLE	
* 118	3-934-009-01	BRACKET (B)	
119	3-934-022-01	JOINT (AVLS)	

6-4. MECHANISM SECTION (MF-WMFX433-114)



Ref. No.	Part No.	Description	Remark
151	X-3369-749-1	PINCH LEVER (N) ASSY	
152	3-920-996-01	SPRING (PINCH N)	
153	X-3369-747-1	WHEEL ASSY, CAPSTAN	
154	3-704-197-71	SCREW (M1.4)	
155	3-921-042-01	GEAR (REEL)	
156	3-921-797-01	WASHER	
157	3-921-003-01	BEARING	
158	3-920-993-01	SPRING (NR)	
159	X-3371-589-1	CHASSIS (COPM) ASSY	
160	3-354-868-11	BELT	
161	3-920-992-01	SPRING (STOP)	
162	3-920-991-01	SPRING (FR)	
163	3-921-053-01	LEVER, D SELECTION	
164	3-921-043-01	GEAR (D)	
165	X-3369-752-1	CLUTCH ASSY	
166	3-920-999-01	GEAR (A)	
167	3-921-050-01	GEAR (B)	

Ref. No.	Part No.	Description	Remark
168	3-920-990-01	SPRING (UD), COMPRESSION	
169	3-921-335-01	WASHER, LEVER	
170	3-923-530-01	SLEEVE (M)	
171	3-728-091-01	WASHER, STOPPER	
172	3-921-052-01	LEVER (A), DETECTION	
173	3-920-994-11	SPRING (D SELECTION)	
174	3-921-022-01	LEVER (B), DETECTION	
175	3-920-995-11	SPRING (PLAY)	
176	3-703-816-31	SCREW (M1.4), SPECIAL HEAD	
177	3-921-023-01	LEVER, M SELECTION	
178	X-3369-748-1	PINCH LEVER (R) ASSY	
179	3-920-997-01	SPRING (PINCH R)	
180	3-931-387-01	SPRING (SW)	
181	3-933-324-01	SPRING (FR LEVER)	
HP901	1-500-205-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-698-457-11	MOTOR (REEL/CAPSTAN)	

HEADPHONE **MAIN**

SECTION 7
ELECTRICAL PARTS LIST

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
  uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  CND : Canadian model
  IT : Italian model
  EE : East European model
  EA : Saudi Arabia model

Ref. No.	Part No.	Description	Remark
	1-660-804-11	HEADPHONE BOARD	
		**********	
*	3-922-444-01	TERMINAL BOARD, ANTENNA	
		< FERRITE BEAD >	
FB101	1-414-235-11	INDUCTOR, FERRITE BEAD	
FB201	1-414-235-11	INDUCTOR, FERRITE BEAD	
		< JACK >	
J301	1-563-298-11	JACK (SMALL TYPE) (DIA. 3.5) (PHONES)	
**********			
	A-3016-818-A	MAIN BOARD, COMPLETE (FS397: US, CND/FS398)	
		**********	
	A-3016-819-A	MAIN BOARD, COMPLETE (FS397: AEP,UK,E)	
		**********	
	A-3016-820-A	MAIN BOARD, COMPLETE (FS397: IT,EA)	
		**********	
	A-3016-822-A	MAIN BOARD, COMPLETE (FS397: EE)	
		**********	
	3-921-878-01	TERMINAL BOARD, BATTERY	
	3-934-017-01	TERMINAL (-), BATTERY	
		< CAPACITOR >	
C2	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	(FS397: US,CND,AEP,UK,E/FS398)
C2	1-163-102-00	CERAMIC CHIP 24PF 5% 50V	(FS397: IT,EA)
C2	1-163-088-00	CERAMIC CHIP 5PF 50V	(FS397: EE)
C3	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	(FS397: US,CND,AEP,UK,E/FS398)
C3	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	(FS397: IT,EA)
C3	1-163-465-11	CERAMIC CHIP 9PF 0.25PF 50V	(FS397: EE)
C4	1-163-091-00	CERAMIC CHIP 8PF 50V	(FS397: US,CND/FS398)
C4	1-163-092-00	CERAMIC CHIP 9PF 0.25PF 50V	(FS397: AEP,UK,EE,E)

Ref. No.	Part No.	Description			Remark
C4	1-163-093-00	CERAMIC CHIP	10PF	5%	50V (FS397: IT,EA)
C5	1-163-086-00	CERAMIC CHIP	3PF		50V
C6	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C8	1-163-117-00	CERAMIC CHIP	100PF	5%	50V (FS397: US,CND/FS398)
C9	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (FS397: US,CND/FS398)
C10	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C11	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C12	1-162-638-11	CERAMIC CHIP	1uF		16V
C13	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C14	1-124-434-00	ELECT	220uF	20%	4V
C15	1-162-638-11	CERAMIC CHIP	1uF		16V
C16	1-164-346-11	CERAMIC CHIP	1uF		16V
C17	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C18	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V
C19	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C20	1-135-221-11	TANTAL. CHIP	3.3uF	20%	4V
C21	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V (FS397: US,CND/FS398)
C21	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V (FS397: AEP,UK,IT,EE,E,EA)
C22	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V (FS397: US,CND/FS398)
C22	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V (FS397: AEP,UK,IT,EE,E,EA)
C23	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C24	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C27	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V (FS397: AEP,UK,IT,EE,E,EA)
C29	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (FS397: US,CND,AEP,UK,E/FS398)
C30	1-163-117-00	CERAMIC CHIP	100PF	5%	50V (FS397: US,CND/FS398)
C101	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C102	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C104	1-126-157-11	ELECT	10uF	20%	16V
C105	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C108	1-164-346-11	CERAMIC CHIP	1uF		16V

Ref. No.	Part No.	Description			Remark
C109	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C201	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C202	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C204	1-126-157-11	ELECT	10uF	20%	16V
C205	1-164-346-11	CERAMIC CHIP	1uF		16V
C207	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C208	1-164-346-11	CERAMIC CHIP	1uF		16V
C209	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C301	1-126-153-11	ELECT	22uF	20%	6.3V
C302	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C303	1-124-434-00	ELECT	220uF	20%	4V
C304	1-164-346-11	CERAMIC CHIP	1uF		16V
C305	1-126-153-11	ELECT	22uF	20%	6.3V
C306	1-164-346-11	CERAMIC CHIP	1uF		16V
C307	1-104-373-21	ELECT	4.7uF	20%	25V
C308	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C309	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C310	1-104-378-21	ELECT	2.2uF	20%	35V
C311	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C312	1-104-372-21	ELECT	3.3uF	20%	25V
C313	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C314	1-104-411-11	ELECT	1uF	20%	50V
C315	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C316	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C317	1-126-153-11	ELECT	22uF	20%	6.3V
C320	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C321	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C322	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C324	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C325	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C326	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C601	1-124-434-00	ELECT	220uF	20%	4V
C602	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C603	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C604	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C605	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V
C606	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< FILTER >			
CF1	1-567-166-00	FILTER, CERAMIC			
CF2	1-760-983-11	FILTER, CERAMIC			
		< CONNECTOR >			
CN301	1-766-819-11	CONNECTOR, FPC (ZIF) 6P			
		< COMPOSITION CIRCUIT BLOCK >			
CP1	1-236-711-21	FILTER, BAND PASS (FS397: AEP,UK,IT,E,EA)			
CP1	1-239-813-21	FILTER, BAND PASS (FS397: EE)			

Ref. No.	Part No.	Description	Remark
		< VARIABLE CAPACITOR >	
CV1-4	1-151-653-11	CAP, VARIABLE (TUNING) (FS397: US,CND/FS398)	
CT1-4	1-151-653-11	CAP, VARIABLE (TUNING) (FS397: US,CND/FS398)	
CV1-4	1-151-654-11	CAP, VARIABLE (TUNING) (FS397: AEP,UK,IT,E,EA)	
CT1-4	1-151-654-11	CAP, VARIABLE (TUNING) (FS397: AEP,UK,IT,E,EA)	
CV1-4	1-115-404-11	CAP, VARIABLE (TUNING) (FS397: EE)	
CT1-4	1-115-404-11	CAP, VARIABLE (TUNING) (FS397: EE)	
		< DIODE >	
D301	8-719-984-02	DIODE BR4371F (BATT)	
D601	8-719-977-03	DIODE DTZ5.6B	
		< FERRITE BEAD >	
FB301	1-414-235-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC1	8-752-072-12	IC CXA1538N	
IC301	8-759-332-69	IC LA4585M-TLM	
IC601	8-759-362-33	IC LB1879M-TE-L	
		< JUMPER RESISTOR >	
JC1	1-216-295-91	CONDUCTOR, CHIP (2012)	(FS397: US,CND,AEP,UK,E/FS398)
		< COIL >	
L1	1-501-828-11	ANTENNA, FERRITE-ROD	(FS397: US,CND/FS398)
L1	1-501-829-11	ANTENNA, FERRITE-ROD	(FS397: AEP,UK,IT,EE,E,EA)
L2	1-411-728-11	COIL (WITH CORE) (RF)	(FS397: US,CND,AEP,UK,E/FS398)
L2	1-411-729-11	COIL (WITH CORE) (RF) (FS397: IT,EA)	
L2	1-411-730-11	COIL (WITH CORE) (RF) (FS397: EE)	
L3	1-411-725-11	COIL (WITH CORE) (OSC)	(FS397: US,CND,AEP,UK,E/FS398)
L3	1-411-726-11	COIL (WITH CORE) (OSC) (FS397: IT,EA)	
L3	1-411-727-11	COIL (WITH CORE) (OSC) (FS397: EE)	
L4	1-411-723-11	COIL (WITH CORE) (OSC)	(FS397: US,CND/FS398)
L4	1-411-731-11	COIL (WITH CORE) (OSC) (FS397: AEP,UK,EE,E)	
L4	1-411-724-11	COIL (WITH CORE) (OSC) (FS397: IT,EA)	
		< TRANSISTOR >	
Q1	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2	8-729-207-65	TRANSISTOR RN1410	
Q3	8-729-207-65	TRANSISTOR RN1410	
Q4	8-729-207-65	TRANSISTOR RN1410	
Q5	8-729-207-65	TRANSISTOR RN1410 (FS397: US,CND/FS398)	
Q6	8-729-207-65	TRANSISTOR RN1410	(FS397: AEP,UK,IT,EE,E,EA)
Q101	8-729-207-65	TRANSISTOR RN1410	

MAIN

Ref. No.	Part No.	Description			Remark
Q201	8-729-207-65	TRANSISTOR RN1410			
Q301	8-729-807-86	TRANSISTOR 2SB1295-UL5			
Q302	8-729-402-13	TRANSISTOR XN1501			
Q303	8-729-207-66	TRANSISTOR RN1411			
Q304	8-729-207-66	TRANSISTOR RN1411			
Q305	8-729-207-66	TRANSISTOR RN1411			
Q306	8-729-207-66	TRANSISTOR RN1411			
		< RESISTOR >			
R1	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R3	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R4	1-216-073-00	METAL CHIP	10K	5%	1/10W
R5	1-216-043-91	METAL GLAZE	560	5%	1/10W
R6	1-216-033-00	METAL CHIP	220	5%	1/10W
R7	1-216-081-00	METAL CHIP	22K	5%	1/10W
R8	1-216-085-00	METAL CHIP	33K	5%	1/10W
R9	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R10	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R11	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R12	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R13	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R14	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R15	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R16	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R17	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
				(FS397: US,CND/FS398)	
R101	1-216-117-00	METAL CHIP	680K	5%	1/10W
R102	1-216-194-00	METAL CHIP	680	5%	1/8W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-077-00	METAL CHIP	15K	5%	1/10W
R105	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R106	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R201	1-216-117-00	METAL CHIP	680K	5%	1/10W
R202	1-216-194-00	METAL CHIP	680	5%	1/8W
R203	1-216-077-00	METAL CHIP	15K	5%	1/10W
R204	1-216-077-00	METAL CHIP	15K	5%	1/10W
R205	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R206	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R301	1-216-073-00	METAL CHIP	10K	5%	1/10W
R302	1-216-101-00	METAL CHIP	150K	5%	1/10W
R303	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R304	1-216-045-00	METAL CHIP	680	5%	1/10W
R305	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-109-00	METAL CHIP	330K	5%	1/10W
R310	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R311	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R312	1-216-045-00	METAL CHIP	680	5%	1/10W

Ref. No.	Part No.	Description			Remark
R313	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R314	1-216-113-00	METAL CHIP	470K	5%	1/10W
R601	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R602	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R603	1-216-025-91	METAL GLAZE	100	5%	1/10W
R604	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R605	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R606	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R607	1-216-295-91	CONDUCTOR, CHIP(2012)			
		< VARIABLE RESISTOR >			
RV1	1-225-215-21	RES, ADJ, CERMET 4.7K			
RV301	1-225-184-11	RES, VAR, CARBON 10K/10K (VOL)			
RV601	1-230-720-11	RES, ADJ, CARBON 5K			
		< SWITCH >			
S1	1-692-605-11	SWITCH, SLIDE (FUNCTION)			
S301	1-762-302-11	SWITCH, PUSH (1 KEY) (TAPE POWER SW)			
S302	1-572-288-11	SWITCH, PUSH (FWD/REV SW)			
S303	1-762-624-11	SWITCH, SLIDE (TAPE)			
				(FM SENS:FS397: US,CND/FS398)	
				(FM MODE:EXCEPT FS397: US,CND/FS398)	
S304	1-692-430-41	SWITCH, SLIDE (AVLS)			
S305	1-692-605-11	SWITCH, SLIDE (MEGA BASS)			
		< TRANSFORMER >			
T1	1-411-722-11	TRANSFORMER, IF			
		< THERMISTOR >			
TH601	1-810-794-11	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X1	1-567-166-00	FILTER, CERAMIC			

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
HP901	1-500-205-11	HEAD, MAGNETIC (PLAYBACK)	
J301	1-563-298-11	JACK (SMALL TYPE) (DIA. 3.5) (PHONES)	
M901	1-698-457-11	MOTOR (REEL/CAPSTAN)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-326-162-02	WASHER, POLYETHYLENE, SLIT	
	3-378-331-01	SCREW, CARRYING CASE	
	3-810-951-11	MANUAL, INSTRUCTION (ENGLISH) (FS397: US)	
	3-810-951-21	MANUAL, INSTRUCTION (ENGLISH,FRENCH,GERMAN,SPANISH) (FS397: AEP,UK,IT)	
	3-810-951-31	MANUAL, INSTRUCTION (DUTCH,SWEDISH,ITALIAN,PORTUGUESE) (FS397: AEP,UK,IT)	
	3-810-951-41	MANUAL, INSTRUCTION (ENGLISH,SPANISH,CHINESE,KOREAN) (FS397: E,EA)	
	3-810-951-61	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (FS397: CND/FS398)	
	3-810-951-71	MANUAL, INSTRUCTION (ENGLISH,POLISH,HUNGARIAN,RUSSIAN) (FS397: EE)	
*	3-932-491-01	INDIVIDUAL CARTON (Printed as Made in China) (FS397: AEP,UK,E,IT,EE,EA)	
*	3-932-309-01	INDIVIDUAL CARTON (None printed)(FS397: E)	
*	3-932-520-01	CUSHION (W.P.) (FS397: CND,AEP,UK,E,IT,EE,EA/FS398)	
	3-933-997-01	CLIP (BELT)	
	3-933-998-01	BAND (FS398)	
	3-937-075-01	STOPPER (BUCKLE) (FS398)	
	8-952-478-90	HEADPHONE MDR-E215/Y SET (FS397: AEP,UK,E,IT,EE,EA)	
	8-953-142-90	HEADPHONE MDR-W14G//K SET (FS397: US,CND/FS398)	

9-960-618-11

Sony Corporation
Consumer A&V Products Company
Personal A&V Products Div.

English
96C0989-1
Printed in Japan
© 1996. 3
Published by Home A&V Products Div.
Quality Engineering Dept.

WM-FS397/FS398

SONY

SERVICE MANUAL

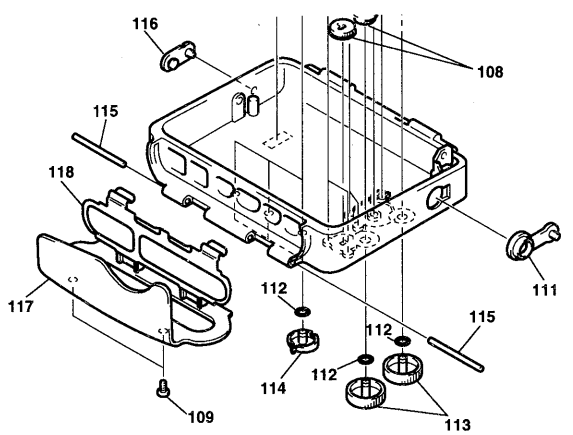
US Model
AEP Model
UK Model
E Model
WM-FS397
Canadian Model
WM-FS397/FS398

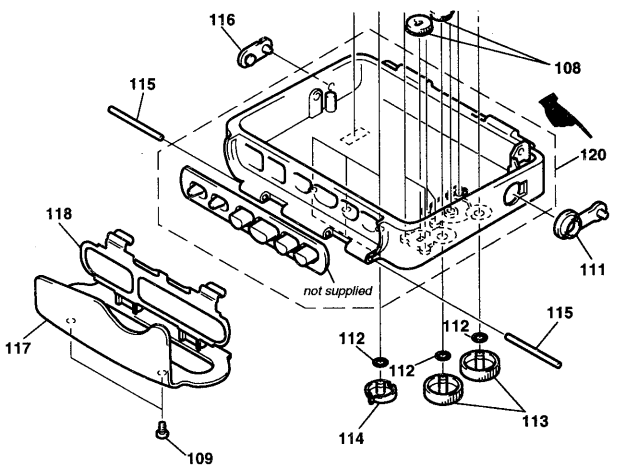
CORRECTION-1

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
18					120	X-3372-024-1	CABINET ASSY, REAR (FS397: US,CND,E,EE,EA)	
					120	X-3372-025-1	CABINET ASSY, REAR (FS397: AEP,UK,IT)	
					120	X-3372-590-1	CABINET ASSY, REAR (FS398: CND)	





- Abbreviation
  CND : Canadian model
  IT : Italian model
  EE : East European model
  EA : Saudi Arabia model

(SPM-97008)

9-960-618-91

Sony Corporation
Personal A&V Products Company

97I0989-1
Printed in Japan © 1997. 9
Published by Quality Engineering Dept. (Shibaura)